

STATEMENT OF CONSIDERATIONS

REQUEST BY UNITED SOLAR SYSTEMS CORP. FOR AN ADVANCE WAIVER
OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE PRIME
CONTRACT NO. DE-AC36-83CH10093; SUBCONTRACT NREL-ZAK-8-17619-
09; W(A)-99-014; CH-1007

The Petitioner, United Solar Systems Corp. (hereinafter "United Solar"), has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under the above referenced subcontract entitled "High-Efficiency Triple-Junction Amorphous Silicon Alloy Photovoltaic Technology". This subcontract is directed to research, development, and manufacturing of amorphous thin film solar cell products.

In Particular, this subcontract is directed to the research and development of high performance two-terminal multi gap, multi junction amorphous silicon alloy modules, and to reduce manufacturing cost while improving product reliability. Under the subcontract, Petitioner will perform fundamental studies on a-Si and a-SiGe alloy materials and cells, optimize the design of triple-junction cells and modules at specified deposition levels and evaluate module encapsulation and reliability using industry standardized test regimes.

It is anticipated that this project will be performed in three phases, over a period of approximately three years. The total projected cost of the subcontract, over the three phases of the subcontract, is \$ 5,560,000.00, the Petitioner's share being \$2,780,000.00. Phase I of the subcontract has been completed at a total cost of \$1,860,000.00, of which the Petitioner's cost share was \$930,000.00 or a 50% cost share. Phase II of the subcontract is in progress and has a projected cost of \$1,800,000.00, of which the Petitioner's cost share is \$900,000.00 (i.e. 50%). It is anticipated that this waiver will be applicable over all three phases of the subcontract, contingent upon the Petitioner maintaining, in aggregate, substantially the same cost sharing percentage over the course of the subcontracts (i.e., 50%).

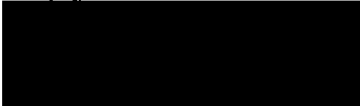
Petitioner is clearly competent in the field of technology relating to this invention. As noted in its response to question 5 of the waiver petition, United Solar has performed extensive research on thin film solar cells, since the company's inception in 1990, and has developed and manufactured numerous thin film solar cells based on this research. Petitioner's personnel have extensive experience in thin film solar cell research and manufacturing. Further, Petition has over 140 patents covering this technology. Petitioner, has utilized its technical expertise to develop an established nongovernmental position in the manufacture of amorphous thin film solar cells. As noted in Petitioner's response to question 6, since its inception, Petitioner has sold over \$28,000,000.00 in products embodying this technology. Considering Petitioner's technical expertise, established market position, and significant investment in this technology, including significant cost sharing in this subcontract, it is reasonable to conclude that Petitioner will continue to further develop and commercialize the technology which may arise from this subcontract.

Referring to item 10 of the waiver petition, granting of this waiver is not anticipated to have any adverse impact on competition. The petitioner already has an established position in the technology. While assisting in improving the Petitioner's position in the market this waiver is

not anticipated to provide a significant advantage, and will instead promote the photovoltaic and alternative energy industry as a whole.

The Petitioner has agreed that this waiver will be subject to the usual government license and march-in and U.S. preference provisions, equivalent to those set out in 35 U.S.C. 202-204, as well as appropriate background patent, third party licensing and data provisions. Further, Petitioner has agreed to the attached U.S. competitiveness provisions (clause (t)). In this connection, it should be noted that the Petitioner has also agreed that should DOE accede to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, royalties, etc. Most important, Petitioner has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so, and in any event it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the subcontract in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR Part 784, all of which have been considered, it is recommended that the requested waiver be granted.


Thomas G. Anderson
Assistant Chief Counsel
Office of Intellectual
Property Law


Date: 10-15-99


Mark LaMarre
Patent Attorney
Office of Intellectual
Property Law

Date: October 15, 1999


Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted.

CONCURRENCE:


James Rannels,
Director of Office of Solar Energy
Technology

Date: 11/8/99

APPROVAL:


Paul Gottlieb
Assistant General Counsel for
Technology Transfer and Intellectual
Property

Date: 11-30-99

WAIVER ACTION - ABSTRACT
W(A)-99-008

REQUESTOR

United Solar Systems Corp.

CONTRACT SCOPE OF WORK

Research and development of high performance two-terminal multi gap, multi junction amorphous silicon alloy modules, and to reduce manufacturing cost while improving product reliability

RATIONALE FOR DECISION

Significant experience in the design and manufacture of photovoltaics
50.0% cost sharing.

the Contractor under paragraph (b) of this clause) may be terminated at the discretion of the Secretary or his designee in whole or in part, if the request for waiver by the Contractor is found to contain false material statements or nondisclosure of material facts, and such were specifically relied upon by DOE in reaching the waiver determination. Prior to any such termination, the Contractor will be given written notice stating the extent of such proposed termination and the reasons therefor, and a period of 30 days, or such longer period as the Secretary or his designee shall determine for good cause shown in writing, to show cause why the waiver of rights should not be so terminated. Any waiver termination shall be subject to the Contractor's minimum license as provided in paragraph (e) of this clause.

(q) Atomic Energy.

No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Contractor or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.

(r) Publication.

It is recognized that during the course of work under this contract, the contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the contractor, approval for release of publication shall be secured from Patent Counsel prior to any such release or publication. In appropriate circumstances, and after consultation with the contractor, Patent Counsel may waive the right of prepublication review.

(s) Forfeiture of rights in unreported subject inventions.

(1) The contractor shall forfeit and assign to the Government, at the request of the Secretary of Energy or designee, all rights in any subject invention which the contractor fails to report to Patent Counsel within six months after the time the contractor:

- (i) Files or causes to be filed a United States or foreign patent application thereon; or
- (ii) Submits the final report required by paragraph (e)(2)(ii) of this clause, whichever is later.

(2) However, the Contractor shall not forfeit rights in a subject invention if, within the time specified in paragraph (m)(1) of this clause, the contractor:

- (i) Prepares a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the decision to Patent Counsel, with a copy to the Contracting Officer; or
- (ii) Contending that the subject invention is not a subject invention, the contractor nevertheless discloses the subject invention and all facts pertinent to this contention to the Patent Counsel, with a copy to the Contracting Officer, or
- (iii) Establishes that the failure to disclose did not result from the contractor's fault or negligence.

(3) Pending written assignment of the patent application and patents on a subject invention determined by the Contracting Officer to be forfeited (such determination to be a Final Decision under the Disputes clause of this contract), the contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph shall be in addition to and shall not supersede any other rights and remedies which the Government may have with respect to subject inventions.

(t) U. S. Competitiveness.

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.

(End of clause)